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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/026,737

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Sammy J. Graham

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1968

7590

08/25/2004

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EXAMINER

THOMPSON, ANNETTE M

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,737

Applicant(s)

GRAHAM ET AL.

Examiner

A. M. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicants' Amendment to 10/026,737 has been examined. Claims 2 and 19 are amended. Claims 23-25 are added. Claims 1-25 are pending.

Applicants' amendment and remarks have been fully considered but is not considered persuasive. The pertinent rejections from the previous office action are incorporated herein.

Claim Objections

1. Claims 23-25 are objected to because of the following informalities: Pursuant to claim 23, at line 1, after "wherein" delete "*establishing guidelines includes*" in entirety; at line 2, delete "that". Pursuant to claim 24, at line 1, after "wherein" delete "*establishing guidelines includes*" in entirety; at line 2, delete "by" and insert - -include- - in lieu thereof. Pursuant to claim 25, at line 1, after "guidelines" insert - -for designing the system include- -; delete "includes" in entirety; at line 2, delete "*for designing the system*" in entirety. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Rejection of claims 1-23 and 25

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3. Claims 1-23 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Pannala et al. (Pannala), U.S. Pub. No. 2003/0079197. Pannala discloses a method and apparatus to generate a wiring harness layout.

4. Pursuant to claim 1, Pannala discloses [a] method of designing a system including an element wherein the element connects a plurality of components (§§ 0004 – 0006)), the method comprising establishing a system design including the plurality of components (§ 21); generating a diagram associated with the system design (§§ 21, 22), wherein the diagram includes the element and the plurality of components; establishing guidelines for designing the system (§§ 0022, 0026-29); and automatically determining a routing pattern in the system for the element based on the diagram and the guidelines (§§ 0021-0027, see especially § 0027).

5. Pursuant to claim 2, wherein the element includes one or more connections (§0018), the determining a routing pattern includes the steps of determining one or more sets of one or more connections that can be bundled (§ 0019); and determining a routing pattern in the element for each bundle (§ 0020).

6. Pursuant to claim 3, further including receiving one or more revised guidelines for designating the structure and determining a revised routing pattern in the system for the element based on the diagram and the revised guidelines (§ 0038).

7. Pursuant to claim 4, further including providing a drawing illustration the structure and the determined routing patterns (§§ 0018, 0021, 0022).

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8. Pursuant to claim 5, wherein the step of accessing guidelines for designing the system includes accessing guidelines associated with the system design (§§ 0027-0029).

9. Pursuant to claim 6, wherein accessing guidelines for designing the system includes accessing guidelines associated with the plurality of components and the elements (§§ 0027-0029).

10. Pursuant to claim 7, further including automatically providing information about the designed system (§ 0039).

11. Pursuant to claim 8, wherein automatically providing information includes the step of providing at least one of: a three dimensional drawing of the structure; a two dimensional drawing of the structure; a list of elements and components; and a bill of material associated with at least one of the system, the element, and the components (§ 0021).

12. Pursuant to claim 9, wherein the element includes a harness (§§ 0004, 0006, 0030).

13. Pursuant to claim 10, it incorporates the limitations already rejected in claim 1 and further recites a computer-readable medium including instructions for designing a structure. Pannala discloses this limitation (§§ 0039-0042) and therefore claim 10 is likewise rejected based on the reasoning of claim 1.

14. Pursuant to claims 11-18, these claims incorporate and address limitations similar if not the same as claims 2-9, respectively, and therefore claims 11-18 are likewise rejected based on the reasoning provided, supra, for claims 2-9.

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15. Pursuant to claim 19, it incorporates the limitations already rejected in claim 1 and further recites a system for designing a system including an element. Pannala discloses this limitation (§§ 0043-0045) and therefore claim 19 is likewise rejected based on the reasoning of claim 1.

16. Pursuant to claim 20, wherein the routing design module is software designed to work with the computer-aided design module (§§ 0039, 0043).

17. Pursuant to claim 21, it incorporates the limitations already rejected in claim 1 and further recites a system for designing a system including an element. Pannala discloses this limitation (§§ 0043-0045) and therefore claim 19 is likewise rejected based on the reasoning of claim 1.

18. Pursuant to claim 22 which recites a method of routing an element among a plurality of elements comprising establishing the plurality of components to be connected; establishing routing guidelines (§ 0022); and automatically determining a routing of the element to connect the plurality of components based on the routing guidelines (§§ 0033-0038).

19. Pursuant to claim 23, wherein establishing guidelines for designing the system includes recommendations for routing the element through the system design (§§ 0018, 0019) wherein the netlist comprises the recommendations).

20. Pursuant to claim 25, wherein establishing guidelines for designing the system includes accessing guidelines from a centralized location (§§ 0041, 0043).

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Rejection of claim 24

22. Claim 24 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Pannala et al. (Pannala), U.S. Pub. No. 2003/0079197. Pannala discloses a method and apparatus to generate a wiring harness layout including establishing guidelines for designing the system. However, Pannala does not explicitly disclose prompting a user to answer one or more questions in establishing the guidelines. Nevertheless, Pannala's use of a user interface with input and output devices suggests the possibility of a system prompt and a user response or entry as could only be accomplished through the use of a terminal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicants' invention that establishing guidelines may be created through system prompt/ user input.

23. Pursuant to claim 24, wherein establishing guidelines for designing the system includes prompting a user to answer one or more questions (¶¶ 0041-0043).

Response to Remarks

24. First of all, Applicants' invention is related to an automatic system and method for designing wiring harnesses. Pannala discloses one such method in accordance with Applicants' invention.

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25. Nevertheless, Applicants' contend that Pannala does not teach "establishing guidelines for designing the system". But Pannala uses a **netlist**, which are guidelines for a design. Even Applicants' specification at page 5, lines 8-9, states that "Guidelines may also includes component-dependent guidelines, such as, for example, the number of connections available on a particular component." This "guideline" information would be an integral part of a netlist; in fact, functionally, Applicants' guidelines are a netlist irrespective of whether the contrived term 'guidelines' or the ordinary term 'netlist' is used.

26. Applicants next assert that Pannala does not teach "automatically determining a routing pattern in the system". However, ¶ 0027 clearly discloses the following computer-implemented, ergo, automatic procedure:

Connections are produced between the symbols. . . Well-known **channel-routing** techniques may be employed to form lines representing the connections between symbols (*emphasis added*) .

27. Finally, although Applicants further assert that Pannala does not teach receiving one or more revised guidelines for designing the system, Pannala does indeed disclose the revision of guidelines involving resizing and positioning of components (¶¶ 0035-0038).

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

29. Any inquiry concerning this communication or earlier communications should be directed to Examiner A.M. Thompson whose telephone number is (571) 272-1909. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 4:30 p.m..

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

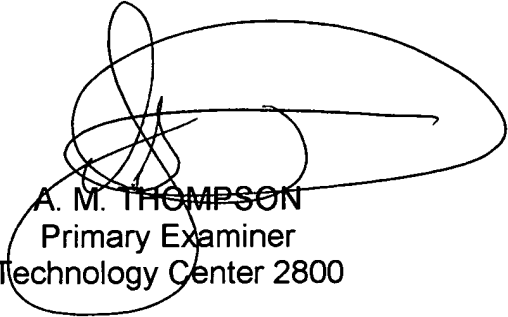
31. Responses to this action should be mailed to the appropriate mail stop:

Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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or faxed to:

(703) 872-9306, (for all **OFFICIAL** communications intended for entry)



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